QuickTime Alternative Programming Environments

Session 730

QuickTime Alternative Programming Environments

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What You'll Learn

- How to build a QuickTime-savvy application
  - In 10 minutes or less
  - In each of 4 different programming environments
- How to *extend* the built-in support for QuickTime provided by each environment
- What *limitations* you may run into using these environments for QuickTime development
- Some *guidance* in making development environments best support QuickTime

The “Standards”

- Metrowerks CodeWarrior
- Microsoft Developer Studio
- Apple IDE (Project Builder/Interface Builder)

The “Alternatives”

- REALbasic
- Visual Basic
- Runtime Revolution
- AppleScript Studio
- tcl/tk
- Python
- Borland Delphi
- FutureBASIC^3

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  - Prompts the user to select a QuickTime movie file
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The Goal

- In each development environment, write an application that:
  - Prompts the user to select a QuickTime movie file
  - Opens the movie in a window that contains just the movie and movie controller bar
  - Permits all the standard means of interacting with the movie
- *And* it must correctly handle different media types: video, sound, QuickTime VR, sprites, Flash, wired actions!

Demo

Tim Monroe
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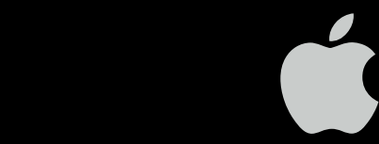
REALbasic

- Published by REAL Software, Inc.
- A rapid application development tool
- Language is an object-oriented variant of BASIC
- Built applications run on Mac and Windows
- Development environment runs on Mac and Windows
- Built-in support for displaying QuickTime movies using a MoviePlayer control



REALbasic Demo

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Microsoft Visual Basic

- A rapid application development environment for Windows

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Microsoft Visual Basic

- A rapid application development environment for Windows
- The number of Visual Basic developers worldwide surpasses those using other Microsoft tools
- Latest version is Visual Basic .NET

Visual Basic

- Developers can easily add support for QuickTime with one of the QuickTime ActiveX controls

Visual Basic

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  - ActiveX controls are among the many types of components that use COM technologies

Visual Basic

- Developers can easily add support for QuickTime with one of the QuickTime ActiveX controls
  - ActiveX controls are among the many types of components that use COM technologies
  - ActiveX controls are easily added to Visual Basic by dragging them onto a Form

Visual Basic

- Available ActiveX controls for QuickTime
  - Apple Computer
  - Installed automatically with QuickTime

Visual Basic

- Available ActiveX controls for QuickTime
  - SkyLight from Skylark Associates Ltd.
  - http://www.skylark.ie

Visual Basic

- Available ActiveX controls for QuickTime
  - QTVRControlX ActiveX control
  - http://members.fortunecity.com/birbilis/QT4Delphi

Visual Basic Demo

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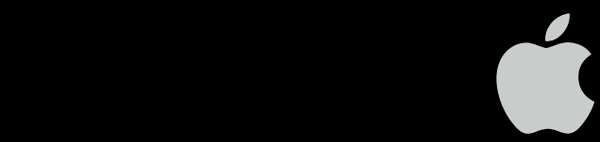
Runtime Revolution

- Published by Runtime Revolution Ltd.
- A rapid application development tool
- Language is an descendent of HyperTalk, called Transcript
- Built applications run on Mac and Windows
- Development environment runs on Mac and Windows
- Built-in support for displaying QuickTime movies using a movie player control



Revolution Demo

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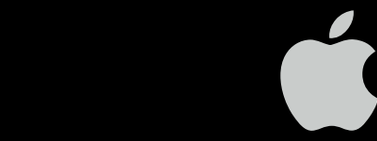
AppleScript Studio

- Published by Apple Computer
- A rapid application development tool
- Language is AppleScript
- Built applications run on Mac
- Development environment runs on Mac
- Built-in support for displaying QuickTime movies using a movie object



AppleScript Studio Demo

Tim Monroe
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Advanced QuickTime Usage

- Basic movie playback is easy
- Editing can be a bit harder
- What about full access to QuickTime APIs?

Advanced REALbasic

- Declare statements

- Plug-In

Advanced Visual Basic

- Declare statements

- Enhanced ActiveX control

Advanced Runtime Revolution

- Plug-In

Advanced AppleScript Studio

- Call Objective-C code with `call method` statement
- Direct access to NSMovie and NSMovieView classes

“Enhancement Opportunities”

REALbasic

- Runtime issues
- Installs a movie controller action filter procedure

“Enhancement Opportunities”

Visual Basic

- Depends on ActiveX control used
- Version 6.0 cannot use `declare` statement with QuickTime APIs

“Enhancement Opportunities”

Runtime Revolution

- Runtime issues
- Installs a movie controller action filter procedure

“Enhancement Opportunities”

AppleScript Studio

- Limited vocabulary for working with movies
- Inherits features from Cocoa classes

Guidance

- Consult with Apple to work around issues concerning movie controller action filter procedure
- Open files with read/write permissions, and allow basic movie editing
- Give developer access to the movie and movie controller

For More Information

Development Tools

REALbasic

REAL Software, Inc.

www.realsoftware.com

Runtime Revolution

Runtime Revolution Ltd.

www.runrev.com

Development Tools

Visual Basic

Microsoft Corporation
msdn.microsoft.com/vbasic

Visual Basic ActiveX Controls

Apple Computer Inc.
www.apple.com/quicktime
SkyLark Associates, Ltd.
www.skylark.ie
George Birbilis
www.members.fortunecity.com/birbilis/QT4Delphi

Development Tools

AppleScript Studio

Apple Computer Inc.
developer.apple.com/tools

Magazine Articles

MacTech Magazine

“The Cocoanuts” December 2002

“Animal Crackers” January 2003

“Basic Instinct” February 2003

“The Vision” March 2003

“Studio 54” June/July 2003

“ Revolution” August/September 2003?

Reference Library

Documentation

General Information

http://www.apple.com/quicktime

Developer Information

http://developer.apple.com/documentation

QuickTime Information

http://developer.apple.com/QuickTime

Do Not Miss!

Lab: QuickTime Content Creation

Meet with QuickTime content experts for daily content specific topics that are of special interest to you. Bring your own media and Powerbook. No appointment is needed—first-come, first-served.

Sacramento Room

Lab: QuickTime Development

Meet with Apple's QuickTime engineers. Each day will emphasize a specific QuickTime development topic. Bring your own code and Powerbook. No appointment is needed—first-come, first-served.

Sacramento Room

Lab Hours

Monday	12:00pm to 6:00pm
Tuesday	9:00am to 6:00pm
Wednesday	9:00am to 6:00pm
Thursday	9:00am to 4:30pm
Friday	9:00am to 6:00pm

Whom to Contact

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Q&A

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WWDC 2003

Worldwide Developers Conference